

Started prototyping receiver to go with Michigan Mighty Mite Transmitter

wandrson

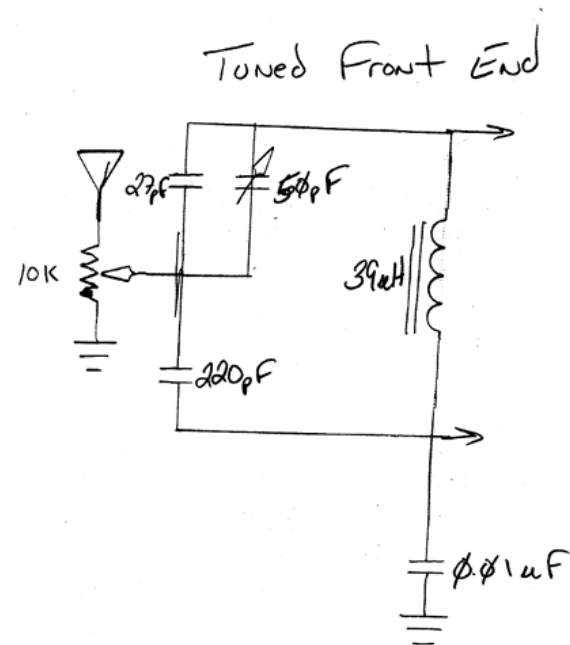
Jul '16

In August, there will be two classes where we build a small one transistor morse code radio transmitter. The second class still has four tickets available, so if interested email me to reserve your seat!

August 20th Build a Michigan Mighty Mite Transmitter

In preparation for a couple of classes in September, I started prototyping a matching radio receiver for that transmitter. It will be a very basic direct conversion receiver with crystal control to match the frequency of the transmitter. With luck I will have the prototype completed by the first class on August 3rd

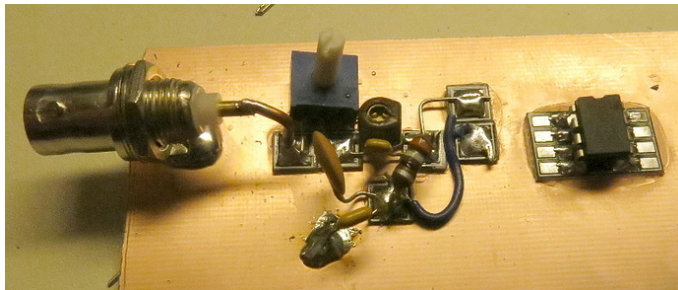
While waiting for some parts, I started assembling the front end to the receiver on some scrap pcb material.



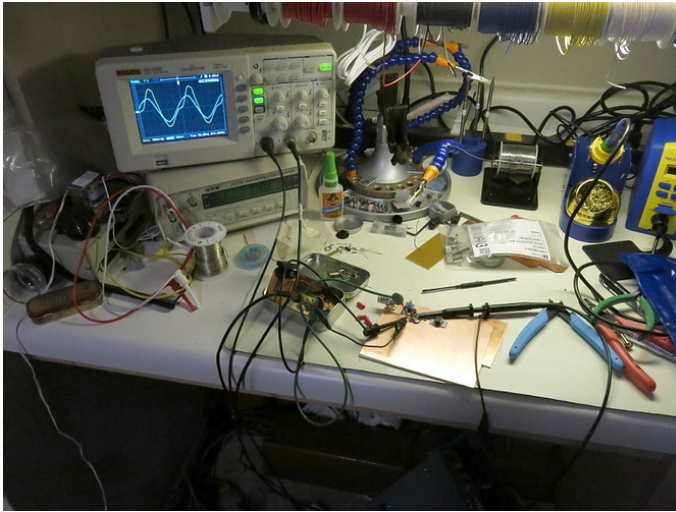
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Jul 2016

May 17



When working with projects like this, it is best to test (and if necessary) fix the project in stages. So the first stage is a simple tuned front end (inductor-capacitor tank circuit). To ensure I did the math correctly, I plugged one of the crystals into a test oscillator I have and fed that into the antenna input and hooked up my scope to both the input and output of the tuned circuit as shown below.



The circuit is aligned by using a [non-conductive alignment tool](#) ([@artg_dms](#) the Electronics committee could use a couple of sets of [these](#)) to rotate the little trimmer capacitor to maximize the amplitude of the output.

Here is a short video demonstrating the process:

If this kind of thing interests you, please sign up for the class (we can/will offer repeats of the transmitter class if there is interest) and come out to our monthly special interest group meetings for the Amateur Radio SIG!

🔗 Dallas Makerspace Show and Tell - August 2017

zmetzing

May 17

wandrson:

If this kind of thing interests you, please sign up for the class (we can/will offer repeats of the transmitter class if there is interest) and come out to our monthly special interest group meetings for the Amateur Radio SIG!

I'm interested. 😊

Another interesting design for a 80m/40m receiver is here:

<http://www.schripsema.org/pa3hdf/projects/dc-receiver/dc-rx.html>